

REMARKS

Status of the Claims

Claims 1-16 are pending in this application.

Claims 1-16 are rejected.

Claims 17-20 are newly added.

Claims 1 and 7 have been amended. Support for these amendments can be found throughout the specification, claims, and drawings, as originally filed.

Claim Amendments

Independent claims 1 and 7 of the present application have been amended in the following manner from which support can be found in the specification as shown in **bold** after each element:

a high order application for generating settings, commands and data; (**See Page 11, ¶ [0047]**)

a virtual sound driver for receiving said settings, commands and data from said high order application; (**See Page 11, ¶ [0047]**)

a buffer driver for temporary storage of said settings, commands and data received by said virtual sound driver; (**See Page 11, ¶ [0047] and [0049]**)

setting software that accesses said buffer driver, said setting software inputs and outputs said data to and from said analog input terminal; (**See Page 11, ¶ [0050]**) and

an event notification feature, included in said buffer driver, that allows said buffer driver to compensate for the inability of the virtual sound driver and setting software to directly input and output said data by adjusting the timing, speed and amount of data input and output to the

setting software and said virtual sound driver due to incorrect timing, speed and amount of data in said buffer driver; and, said setting software performs communication with said analog input terminal when said event notification feature is communicated from said buffer driver to said setting software. (**See Page 11, ¶ [0049] and [0050]; Page 14 ¶ [0067]**)

In addition to all of the above amendments being supported by the specification, they are also supported by the drawings in Fig. 2. Applicant believes that all of the amendments made to independent claims 1 and 7 are fully supported by the specification and drawings as originally filed and entry of the amendments is respectfully requested.

Rejection of Claims Under 35 U.S.C. § 103(a)

Claims 1-4, 7, 8, 10, 11 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2004/0039462 A1 to Chen (hereinafter referred to as Chen) and in further view of U.S. Patent No. 7,051,337 to Srikantan et al. (hereinafter referred to as Srikantan). Claims 5, 6, 12 and 13 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen, in view of Srikantan and in further view of U.S. Patent No. 5,896,099 to Yamauchi (hereinafter referred to as Yamauchi) and Official Notice (ON). Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen, in view of Srikantan and in further view of non-patent publication "Performance of buffer-based request-reply scheme for VoD streams over IP networks" by Poon et al. (hereinafter referred to as Poon). Claims 14 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chen, in view of Srikantan and in further view of non-patent publication "Statistically Based Buffer Control Policies

for Constant Rate Transmission of Compressed Digital Video" by Zdepski et al. (hereinafter referred to as Zdepski) and non-patent publication "Synchronized on-to-many media streaming with adaptive playout control" by Jo et al. (hereinafter referred to as Jo).

Applicant respectfully traverses the rejections. In order for a claim to be rendered obvious, the proposed combination of references must teach or render obvious all of the elements of the rejected claim. If the proposed combinations fail to render obvious all of the elements, then the rejected claim is not obvious in view of the proposed combination. With regard to all of the above rejections, Applicant has amended independent claims 1 and 7 of the present application to further define the application processing unit. The application processing unit includes a high order application, a virtual sound driver, a buffer driver and setting software that all work in combination to input and output data to an analog input terminal. The application processing unit of independent claims 1 and 7 now further includes an event notification feature on the buffer driver that allows for the buffer driver to compensate for the inability of the virtual sound driver and setting software to directly input and output data by adjusting the timing speed and amount of data input and output to the setting software and the virtual sound driver as well as the setting software performs communication with the analog input terminal when the event notification features communicated from the buffer driver to the setting software. Applicant maintains that all the above features of amended independent claims 1 and 7 are not taught or rendered obvious by the various combinations proposed above.

The various proposed combination of references include three patent documents. The main document relied upon is Chen. With regard to Chen, the Office Action maintains that Chen teaches an application processing unit at Fig. 3, items 24 and 30 as well as paragraph [0018]. Fig. 3 of Chen at items 24 and 30, a sound chip and PCI bus are shown. Independent claims 1 and 7 of the present application differentiate from Chen because claims 1 and 7 include a virtual sound driver which is a software based driver as opposed to using hardware such as a sound chip card taught by Chen. Furthermore, Applicant argues that the combination of items 24 and 30 of Chen do not teach or render obvious a high order application for generating settings, commands and data; a virtual sound driver for receiving the settings, commands and data from the high order application in addition to a buffer driver for temporary storage of the settings, commands and data received by the virtual sound driver; settings software that accesses the virtual sound driver wherein the setting software inputs and outputs data to and from the analog input terminal. Instead, Chen teaches using two pieces of hardware, a sound chip 24 and PCI bus 30, which the Office Action maintains is an application processing unit. Paragraph [0018] of Chen indicates that the sound chip 24 is connected to the interface 30 and is capable of processing sound and joystick signals. There is nothing in the specification of Chen that teaches or renders obvious an application processing unit that includes the amended features of claims 1 and 7.

Applicant also maintains that independent claims 1 and 7 further include an event notification feature that is part of the buffer driver that allows the buffer driver to compensate for the inability of the virtual sound driver and setting software to directly input and output data by adjusting the timing, speed and amount of data input and

output to the setting software and virtual sound driver due to incorrect timing speed and the amount of data in the buffer driver. Claims 1 and 7 include the setting software performs communication with the analog input terminal when the event notification feature is communicated from the buffer driver to the setting software. Chen does not teach an application processing unit that includes a buffer driver and also does not disclose a buffer driver that contains an event notification feature as discussed above. As such, Applicant maintains that independent claims 1 and 7 are distinguishable from Chen.

When Sirkantan is combined with Chen, the proposed combination still fails since Sirkantan does not teach or suggest the application processing unit as amended in independent claims 1 and 7 of the present application. Sirkantan teaches a method and apparatus for handling media streamed through a server to other clients of the server. The invention focuses on the assignment of various sockets for the media streaming. There is nothing in Sirkantan that teaches or suggests the application processing unit as amended into independent claims 1 and 7 of the present application. Therefore, Applicant maintains that if Sirkantan is combined with Chen or any of the above combinations of references, the rejection will fail.

With regard to the proposed combination of Chen in view of Sirkantan and further in view of Yamauchi and Official Notice, Applicant further argues that this proposed combination fails to teach or render obvious the application processing unit as set forth in independent claims 1 and 7 of the present application. In order for the proposed application to render obvious the rejected claims, Yamauchi and Official Notice must teach or render obvious an application processing unit that includes all of the elements

now amended into these claims. Yamauchi is directed to an audio decoding apparatus that has a buffer for storing audio stream. The invention teaches using two pieces of hardware in connection with the bit buffer for controlling the rate of data flow from the bit buffer. In one aspect of the invention, Yamauchi teaches using a skip circuit 8 for thinning the audio stream transferred to the bit buffer. See *Yamauchi at Fig. 2 and Col. 6, Lines 15-41*. Additionally, Yamauchi teaches using a speed control circuit 7 that is part of a decode core circuit 3 that monitors the occupied amount of audio stream occupying a bit buffer controlling the decoder. The control circuit 7 is used in connection with the decoder and modifies the operations of the decoder 3. See *Col. 5, Lines 20-25 and Fig. 2*. When Yamauchi is combined with Chen and Sirkantan, the combination of references still fail to teach or render obvious all of the elements of amended independent claims 1 and 7 of the present application. Additionally, when all the other NPL documents are combined with these three primary patent documents, Applicant further believes that the various combinations of all the references do not teach or render obvious the application processing unit as amended into independent claims 1 and 7 of the present application. Therefore, Applicant respectfully requests removal of the rejection and allowance of the claims of the present application.

In view of all the amendments made to independent claims 1 and 7 of the present application, Applicant believes that these claims as well as dependent claims 2-6 and 8-20 are now allowable over the cited prior art. Removal of the rejections and allowance of these claims is respectfully requested.

CONCLUSION

It is respectfully submitted that in view of the above amendments and remarks the claims 1-20, as presented, are patentably distinguishable because the cited patents, whether taken alone or in combination, do not teach, suggest or render obvious, the present invention. Therefore, Applicant submits that the pending claims are properly allowable, which allowance is respectfully requested.

The Examiner is invited to telephone the Applicant's undersigned attorney at (248) 364-4300 if any unresolved matters remain.

Respectfully submitted,

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